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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,638	02/19/2004	Ming Bo Wang	021565-156	2125
21839 7590 10/22/2007 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER KALLIS, RUSSELL	
			ART UNIT 1638	PAPER NUMBER
			NOTIFICATION DATE 10/22/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/780,638

Applicant(s)

WANG ET AL.

Examiner

Russell Kallis

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1638

DETAILED ACTION

Rejection of Claim 1 under 35 U.S.C. 112, second paragraph, is withdrawn in view of Applicant's amendments.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-12 are pending and examined.

Claim Rejections - 35 USC § 103

Claims 1-12 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Wesley S. *et al.* The Plant Journal, 2001; Vol. 27, no. 6; pp. 581-590 in view of Yukawa Y. *et al.* Plant Molecular Biology, 2002; Vol. 50, pp. 713-723 and Applicant's specification. This rejection is maintained for the reasons of record set forth in the Official action mailed 1/25/2007.

Applicant's arguments filed 7/25/2007 have been considered but are not deemed persuasive.

Applicant asserts that Yukawa is limited to only teaches *in vitro* expression using Pol III promoters (response page 8 paragraph 2). Yukawa teaches the successful *in vitro* transcription using nuclear plant extracts and teaches the usefulness of the Pol III promoters for *in vivo* expression in transformed plants.

Applicant asserts that Yukawa does not teach or suggest the use of the instantly claimed silencing constructs (response page 8, paragraph 3). Yukawa does teach the usefulness of the 7SL Pol III promoters in antisense transformation of plants. One of ordinary skill in the art would realize that a promoter that is useful for antisense silencing because of the expression properties of the promoter would also prove useful in the double stranded "antisense silencing" constructs claimed by Applicant.

Art Unit: 1638

Applicant asserts that Yukawa does not teach success for driving gene expression in plants (response page 8, paragraph 4). Clearly, success was demonstrated *in vitro* using plant nuclear extracts is evidence that the promoters would function *in vivo* in a transgenic plant directed to antisense technology.

Applicant asserts that Yukawa does not teach or suggest that using a pol III promoter would be more effective in gene silencing using a hpiRNA (i.e. double stranded RNA) construct than a pol II promoter (response page 9, paragraph 1). The claims are not drawn to Pol II promoters or to any comparative increase in expression using Pol III promoters relative to Pol II promoters. However, Yukawa does teach that Pol III promoters are advantageous, because they were shown to high levels of stable transcripts (see abstract); and thus would prove very advantageous in driving expression *in vivo*.

No claim is allowed.

Art Unit: 1638

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kallis whose telephone number is (571) 272-0798. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Russell Kallis Ph.D.
January 20, 2007

RUSSELL P. KALLIS, PH.D.
PRIMARY EXAMINER

Russell Kallis